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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/554,736	07/10/2000	Michihiro Shibano	OHS-285	2992

7590 03/31/2004

SHERMAN & SHALLOWAY  
413 N WASHINGTON STREET  
ALEXANDRIA, VA 22314

EXAMINER

RAJGURU, UMAKANT K

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 03/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/554,736

Applicant(s)

SHIBANO ET AL.

Examiner

Umakant K. Rajguru

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 1711

1. An amendment has been filed on Dec 16, 2003

Claims under examination are 1-7.

2. Rejection of claim 7 under 35USC 112, second paragraph (item 3 of prior Office action of Set 16, 2003) has now been withdrawn.

Also withdrawn is the rejection of claims 1-7 under 35USC 103(a) (items 5-8 of same Office action).

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shizuki et al (US 4600743) in view of Powers (US 5711994) (or Abe et al (US 5658848)) further in view of Nakamura et al (US 5294444).

Shizuki discloses an antistatic fiber obtained from a thermoplastic polymer containing polyoxyalkylene glycol or its derivative in an amount of not less than 0.5% by wt. (abstract). Suitable glycols are listed in column 5, line 33 to column 6, line 24, one of them being copolymer of polytetramethylene glycol (column 5, lines 40-41).

Shizuki fails to disclose the claimed phosphate salt.

Powers describes treated non-woven fabrics. An alkyl phosphate salt is used as an antistatic agent (col. 9, line 15; col. 10, line 24). Abe discloses a composition of a paint in which triethanolamine dioctylphosphate is used as an antistatic agent (col. 6, line 35).

Nakamura discloses a composition in which certain sulfates and phosphates are used as anionic surfactants. The phosphates in col. 3, lines 30-42 read on those that are claimed in instant claim 1. It is known that surfactants act also as antistatic agents.

Therefore it would have been obvious to include in the fiber forming composition of Shizuki, the phosphate/s taught by Nakamura to enhance antistatic property because phosphates (as shown by Powers and Abe) impart antistatic property.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shizuki et al (US 4600743) in view of Powers (US 5711994) (or Abe et al (US 5658848)) further in view of Nakamura et al (US 5294444) as applied to claim 1 above, and further in view of Dunay (US 3775213).

Shizuki (together with three references) does not mention spinning solvent (of instant claim 4).

Dunay discloses production of insulative material from poly benzimidazole fiber using N,N-dimethyl formamide or N, N-dimethylacetamide as preferred solvents (column 4, lines 16-17).

It would have been obvious to use solvents of Dunay in the preparation of fiber of Shizuki as the preferred solvents.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over shizuki et al (US 4600743) in view of Powers (US 5711994) [or Abe et al (US 5658848)] further in view of Nakamura et al (US 5294444) as applied to claim 1 above, and further in view of Murata (US 5954062).

Prior art fails to mention the lubricant (of claim 5).

Murata discloses artificial hair and its preparation wherein an amino-modified silicone lubricant is used (column 6, lines 6-8).

Therefore, it would have been obvious to use the lubricant of Murata for the fiber of Shizuki in order to prevent fusion and intermixing of fibers.


7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Umezawa et al (US 5800900) in view of Power (US 5711994 [or Abe et al (US 5658848) and Nakamura et al (US 5294444).


Umezawa discloses polyurethane fiber which contains many useful additives, one of them being antistatic agent/s (column 7, line 64).

It would have been obvious to use the phosphates as the preferred antistatic agent for the fiber of Umezawa to enhance its antistatic property.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to U. K. Rajguru, whose telephone number is (571) 272-1077. The examiner can normally be reached on Monday-Friday from 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

  
U. K. Rajguru/af  
March 18, 2004

  
James J. Seidleck  
Supervisory Patent Examiner  
Technology Center 1700